Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Index to Recent American Botanical Literature.

Analytic Key to the Genera of Mosses recognized in the Manual of Mosses of North America by Lesquereux and James. Charles R. Barnes. (Bull. Purdue Univ. School of Science, No. 1, 1886.)

Prof. Barnes has rendered students of Bryology a valuable service in arranging this artificial key.

Botanical Notes. W. S. Devol. (Fourth Annual Report Ohio Agr. Expt. St., 1886, pp. 223-226.)

Consists mainly of a list of plants identified, principally weeds, grasses and forage plants, from all parts of Ohio.

Cactuses.—New Lower Californian. C. R. Orcutt. West American Scientist, ii.. pp. 46, 47; one figure.)

Mr. Orcutt publishes descriptions of a new species of *Echinocactus*, (*E. Orcuttii*, Engelm.) having cylindrical heads, 10 to 18 inches in diameter and 2 to 3½ feet high, and deep crimson flower 2 inches long; found in Palm Valley, Lower California; and of *Cereus phœniceus*, var. *Pacificus*, Engelm, a new form from Todos Santos Bay. Both are from manuscript notes by Dr. Engelmann. A wood-cut of the *Echinocactus* is given.

Catalogue of the Phœnogamous and Vascular Cryptogamus Plants of Missouri. S. M. Tracy. (Pamphlet, 8vo., pp. 106; Jefferson City, 1886.)

A neatly printed list of plants hitherto found growing without cultivation in the State. 1785 species and varieties are enumerated, of which 59 are Pteridophyta.

Celery.—History of. E. Lewis Sturtevant. (Amer. Nat., xx., pp. 599-606; three figures.)

Contagious Diseases of Insects, S. A. Forbes. (Bull. Ill. State Lab. Nat. Hist., ii., pp. 257-321; one plate.)

Bacterial diseases of the European Cabbage Worm—by whose ravages the injuries of these pests have received a very important check—and of the Yellow-necked Apple Caterpillar and the Walnut Caterpillar, very similar to that of the *flacherie* of the Silk-worm, are described. The heliotype plate shows the *Micrococci* from a diseased Cabbage Worm. The *Muscardine*, another Silk-worm disease, is not bacterial, but is caused by the filaments of a hyphomycetous fungus; to this Professor Forbes attributes the disappearance of a vast host of the Forest-tent Caterpillar which devastated forests and orchards in Southern Illinois in 1883.

Cryptogams.—Guide to the Principal Orders and commoner New England Genera. F. LeRoy Sargent. (Cambridge University Press, 1886, pp. 39, pr. 75c.)

This convenient little guide is intended for the Summer School at Harvard University, but will be found useful by all beginners in the study of the more lowly plants, especially Fungi and Lichens.

Cylindrosporium.—Two New Species of. J. B. Ellis and W. A. Kellerman. (Journ. Mycol., ii., p. 81.)

Flora of Franklin Co., Ind.—Endogens. O. M. Meyncke. (Bull. Brookville Soc. Nat. Hist., No. 2, pp. 45-49.)

A continuation of the list of plants commenced in the first bulletin of this Society. Ninety-five species are here enumerated. The proofs have not been carefully examined, there being many inexcusable errors of spelling.

Forest Rotation.—Causes of. John T. Campbell. (Amer. Nat. xx., pp. 521-527.)

A readable article on this interesting subject. The writer concludes that in western central Indiana the seeds of no forest trees germinate unless they fall on the soil, those dropping on the accumulated leaves beneath the trees not being able to germinate. Also that birds and other animals are the principal agents in the dissemination of tree seeds, the crow being a prime factor in this process.

Fouquiera gigantea, n. sp. C. R. Orcutt. (West Amer. Scientist, ii , p. 48.)

Gray Herbarium of Harvard University. (Bot. Gazette, xi., p. 151.)

A brief description of the plan of arrangement, with a long account of the cases and their fastenings.

Harfordia, Greene and Parry.—A New Genus of Eriogoneæ from Lower California. C. C. Parry. (Proc. Davenport Acad. Sci., v., pp. 26-28 ; reprinted.)

The proposed new genus includes two species, *H. macroptera* (*Pterostegia macroptera*, Benth.,) and *H. fruticosa*, Greene (*P. fruticosa*, Greene, in Bull. Cal. Acad., iv., p. 212.)

Henry James Clark, 1826-1873. (Cat. Mass. Agr. Coll., 1886.)

Mr. Clark was Professor of Natural History at Amherst, and two of his works were botanical: "The Peculiar Growth of Rings in the Trunk of *Rhus toxicodendron*," (Proc. Am. Acad., iii., p. 335,) and "The Eccentricity of the Pith in *Ampelopsis quinquefolia* and *Celastrus scandens*." (Unpublished.)

How to Collect Certain Plants. (Bot. Gazette, xi., pp. 135-151.)

The editors of the Gazette have succeded in obtaining from specialists a series of suggestions for the satisfactory collection and preservation for the herbarium of many groups of plants. For the Cacti, Dr. Engelmann's Notes, by Professor Trelease; Willows, M. S. Bebb; Carices, L. H. Bailey, Jr.; Grasses, F. L. Scribner; Aquatics, Thomas Morong and E. J. Hill; Mosses, E. A. Rau and Clara E. Cummings; Charas, Dr. Allen; Lichens, F. L. Sargent; Fleshy Fungi, A. P. Morgan, C. H. Peck, H. W. Ravenel; Parasitic Fungi, A. B. Seymour and E. W. D. Holway; Marine Algæ, A. B. Hervey; Fresh Water Algæ, Francis Wolle; Desmids, Eloise Butler; *Nostoc* group, Dr. Farlow; Slime Moulds and Bacteria, Prof. Trelease; Yeast, Dr. Farlow.

Larches of Western North America. C. S. Sargent. (Gard. Chron., xxv., pp. 652-654, illustrated; also reprinted.)

There are two species of *Larix* in Northwestern America, *L. occidentalis*, Nutt., discovered by Douglass in 1826 on the Columbia River, and referred by Hooker to *L. Americana*, from which it was distinguished by Nuttall. This is a very large tree, reaching 200 feet in height, and was first introduced into cultivation in 1880, when Mr. Watson sent seedlings to the Arnold Arboretum. The second species, *L. Lyallii*, Parlatore, is a rare and local tree, discovered by Dr. Lyall during the British Boundary Survey of 1858-61, and recently detected by Mr. Brandegee at the timber line on Mt. Stewart, where it was a low, stunted tree, associated with *Pinus albicaulis* and *Tsuga Pattoniana*. Beautiful figures of the two species, drawn by Mr. Faxon, illustrate Mr. Sargent's paper.

Lichens of Grinnell Land. In Lieut. Greeley's account of the Franklin Bay Expedition, (New York, 1886, Vol. ii., p. 397), a list of the Lichens brought home is given by Rev. E. Leinhart of Washington. It appears that a large collection of Lichens was made, but unfortunately they had to be left behind, and only seven species were accidentally preserved which were collected in Grinnell Land and at Cape Baird. These were *Cetraria cucullata*, (Bell.) Ach.; *C. chrysantha*, Tuckerm.; *Peltigera aphthosa*, (L.) Hoffm.; *Placodium elegans*, (Link) DC.; *P. crenulatum*, (Wahlenb.) Tuckerm.; *Cladonia rangiferina*, (L.) Hoffm., and *Omphalaria* (?). This last was collected on quartz at the extreme northern point reached, and appears not to have been in a state to admit of its being satisfactorily determined. Mr. Leinhart compares it with *O. Silesiaca*, Koerb., but which, according to that author himself, (Parerg, p. 443), is the same as *O. phyllisca*, (Wahlenb.) Tuckerm., Syn., p. 140.

The writer remarks on the scarcity of *C. rangiferina* in Grinnell Land as compared with its abundance in Scandinavia. In the former it is rare and cannot form a source of food supply for animals.

NEW BEDFORD, July, 1886. H. W.

Lilium superbum. (Garden, xxx., pp. 8, 9; plate 551.)

Our native wild lilies are attracting much attention abroad, and are being successfully cultivated. The plate accompanying this description is particularly fine, and was drawn from plants grown in England. They succeeded admirably in moist, well drained situations.

National Herbarium at Washington. George Vasey. (Bot. Gazette, xi., p. 153.)

An enumeration of the various collections there preserved, made by Government expeditions and individuals, with an account of the arrangements and extent of the herbarium.

Pollen-tubes of Lobelia. B. D. Halsted. (Amer. Nat., xx., pp. 644, 645; three figures.)

Rhizocarps in the Erian (Devonian) Period in America. Sir Wm. Dawson. (Bull. Chicago Academy of Sciences, i., pp. 105-118; illustrated.)

Specimens and Specimen Making. Various prominent collectors. (Bot. Gazette, xi., pp. 129-134.)

Tradescantia Virginica.—Varieties of. G. A. Brennan. (Amer. Nat., xx., pp. 551, 552.)

A plant of the Spiderwort after thirteen years cultivation has developed dimerous, tetramerous, pentamerous, hexamerous, and even heptamerous flowers, which, in addition to the normal trimerous ones, have all been borne at the same time. The modifications have resulted from the addition of parts.

Trees and Tree Planting in Massachusetts.—Some additional notes upon. C. S. Sargent. (Ann. Rep. Mass. State Board Agric., 1886, p. 21.)

Vaucheria.—Some abnormal forms of. Douglass H. Campbell. (Amer. Nat., xx., pp. 552, 553; seven figures.)

Weeds mentioned in the Wisconsin Weed Law of 1884-5, *and several other weeds.* A. B. Seymour. (Third Ann. Rep. Agric. Exper. Station Univ. Wis., pp. 145-167; reprinted.)

The weeds that most need to be exterminated in Wisconsin are the Canada Thistle, Common Thistle, Burdock, Ox-eye Daisy, Cocklebur, Beggar's Lice and Couch-grass. Illustrations of all these are given, with notes on their introduction, and possibilities of their destruction.

Winter.—Botany in. Byron D. Halsted. (Amer. Nat., xx., pp. 553-556.)

Teachers will find this helpful.

Wisconsin Parasitic Fungi.—Preliminary List of. William Trelease. (Trans. Wisc. Acad., vi., pp. 106-144.)

Two hundred and sixty-eight species are enumerated, all of which have been examined by the author. The host plants are given, and a useful index to them is appended.

Woods and their Destructive Fungi. P. H. Dudley, C. E. (Pop. Sci. Month., xxix., pp. 433-444; illustrated.)

This is the first of two articles in which Mr. Dudley brings before the public some of the results of his investigations of woods and the causes of their decay. After calling attention to the injuries suffered by some of the specimens in the Jesup collection at the Am. Mus. of Nat. Hist., he proceeds to show the differences in microscopic structures of various woods, and has selected four of his beautiful photo-micrographs as illustrations. The Gymnosperms are represented by *Pinus palustris* and *Chamæcyparis sphæroidea* (White Cedar), and the Angiosperms by *Quercus alba* and *Liriodendron tulipifera.* After lamenting the fact that lumbering is now carried on throughout the year, and calling attention to the fact that timber cut in the spring growth will be most liable to decay, Mr. Dudley illustrates the penetration of fungi by a photograph of a plank showing the mycelium of *Polyporus radula.* The more common destructive fungi are also enumerated, and the article concludes with a comparison of the conditions in which decay is most and least likely to occur.

Yucca angustifolia. A chemical study. Helen C. DeS. Abbott. (Rep. from Trans. Am. Phil. Soc., Phil., 1886., pp. 254-284.)

Botanical Notes.

Specimens of Dentaria and Cardamine wanted.—Fruiting specimens of any species of *Dentaria* and *Cardamine* are wanted for examination by Sereno Watson, Cambridge, Mass. They will be returned if desired and postage refunded.

Lectures on the Physiology of Plants.—Sydney Howard Vines, (Cam. Univ. Press, England, 1886, octavo, pp. 710, pr. $5.00, In style, clearness and method this will prove a companion to Foster's Physiology of Animals, and deserves a place by its side. The chapters are in the form of lectures, twenty-three in number, sparsely illustrated, but containing clear deductions from the researches of the last ten years. Much space is given to Metabolism and Irritability, and the changes due to chemical and physical forces, with their effects on the assimilation and growth of plants, are discussed in these chapters. The last two chapters on Reproduction co-ordinate and bring out the analogies of this function throughout the Plant Kingdom, and will prove most interesting reading to those whose knowledge of German and access to periodicals is limited, and whose experience with the varied forms and nomenclature of Cryptogamous reproduction has been a source of confusion and discouragement. Copious references to bibliography follow each chapter.

Solanum tuberosum.—Nouvelles Recherches Sur le Type Sauvage de la Pomme de Terre. Alph. DeCandolle. (Archiv. Sc. Phys. et Nat., xv., p. 425.) Since the publication in 1883 of the "Origin of Cultivated Plants," there have appeared several articles on the potato, which have led M. DeCandolle to give more critical attention to those " organs and characters which it is not to the interest of man to see changed." In the potato the calyx and the leaves have remained practically the same since its introduction three centuries ago.